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SUN/BLAKELY 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025-1030			EXAMINER DIVECHA, KAMAL B	
			ART UNIT 2151	PAPER NUMBER
			MAIL DATE 05/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/042,092

Applicant(s)

SCHEER ET AL.

Examiner

KAMAL B. DIVECHA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 2, 7-9, 20, 22, 25, 28-35 and 37-39 are pending in this application.

Claims 3-6, 10-19, 21, 23, 24, 26 27 and 36 were previously cancelled.

Claims 37-39 are newly added claims.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on March 6, 2007 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 6, 2007 has been entered.

Response to Arguments

Applicant's arguments filed March 6, 2007 in association with a Request for Continued Examination (RCE) have been fully considered but they are not persuasive.

In response filed, applicant argues in substance that:

- a. Abboud does not show, teach or disclose, alone or in combination, a first or gateway server and the second server are of different type and operable to support dissimilar operations (Remarks, pg. 8).

In response to argument [a], Examiner respectfully disagrees.

Currently Amended Claim 1 recites:

A method, comprising:

receiving a design list for a network of servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network and number of WAN IP addresses assigned to the network;

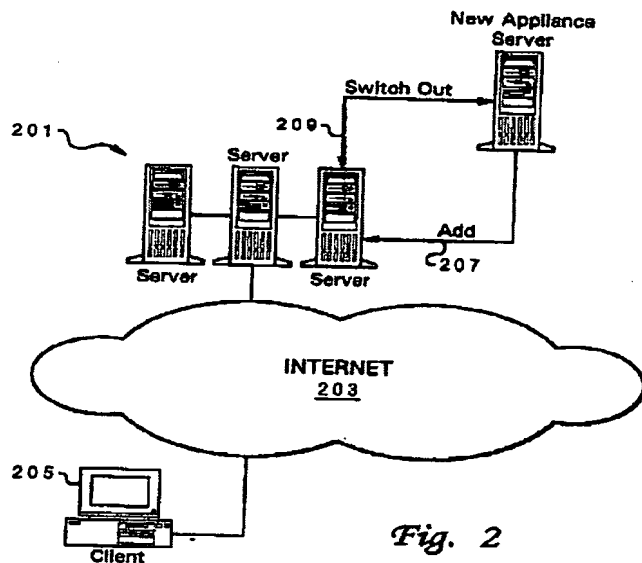
generating a plurality of network designs for the network based upon a design rule and the design list, further comprising receiving wherein a first network design of the plurality of network designs is selected, and wherein the design rule determines a first server in the network is first in receiving all incoming data packets to the network;

configuring software and hardware settings for a second server in the network, the software and hardware settings including switches, jumpers, IP address, links, ports and values of software parameters, the configuration of the software and hardware settings based upon the design rule and the first network design;

building a digital image with the software and hardware settings for the second server, the second server having a different server type than the first server and operable to support dissimilar operations; and

deploying the digital image onto the second server.

Abboud, from the same field of endeavor clearly teaches and discloses configuring and/or reconfiguring plurality of servers (See fig. 2 reproduced below) in order to enable the plurality of servers to provide different purpose and/or function(s) by re-provisioning (pg. 1 [0007], [0010], [0012]).



When the server associated with step 209 and 207 is re-provisioned in order to provide a different purpose and/or application, the system in figure 2 results in a system having at least two servers with different application and/or purpose, i.e. first and second server having different types and operable to support dissimilar operations.

Additionally, Abboud at [0008] clearly discloses the fact where multiple servers or server groups with different applications, i.e. different purpose or function, are controlled by an ISP and make up the server farm.

At [0012], Abboud explicitly suggests the invention that is implemented for automatically re-provisioning/re-purposing an appliance server to provide a different application and/or appliance responsive to a schedule or user demand.

Based on these teachings, it is logically clear that Abboud does teach and disclose a second server having different type than the first server and operable to support dissimilar operations.

Examiner does agree that Abboud fails to expressly describe a gateway sever, however, the claims as recited fails to disclose, teach and/or suggest the gateway server. Also note that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In this case, the claim fails to expressly disclose the first server as a gateway server and the second server as any other arbitrary server different than the gateway server.

In any event, even if Abboud fail to disclose the first server and the second server of a different type and operable to support dissimilar operations, Steitle, in its clear context, expressly

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discloses designing a network comprising a firewall server, switches, server farm and/or web server (See fig. 4).

In view of applicant's specification (See [0021]), the first server may correspond to a firewall server and the second server may correspond to email and/or web servers, which are clearly disclosed in fig. 4 item #418, and item #414 that are specifically operable to support dissimilar operations.

Therefore, in an event where Abboud's system receives the network design as in figure 4 (Steitle) and re-provisions the servers as in figure 2 (Abboud), the system results in an invention that is similar to an invention presented in the present application.

b. Abboud does not show, teach or suggest a first server and a second server, such that the second server is deeper in the network by reciting that the second server is accessible via the first server, as in the case of a firewall or gateway router (Remarks, pg. 8-9).

In response to argument [b], Examiner respectfully disagrees.

In response to applicant's argument that Abboud fails to show, teach or suggest a first server and a second server, such that the second server is deeper in the network by reciting that the second server is accessible via the first server, as in the case of a firewall or gateway router, it is noted that the features upon which applicant relies (i.e., gateway router or firewall) are not recited in the rejected claim(s) in addition to the response to argument [a] above. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to argument [c], Examiner respectfully disagrees.

Secondly, Abboud clearly teaches the process of deploying the respective generated code on the respective nodes in conjunction with the respective nodes (See pg. 5 [0047-0053] of '6 reproduced below, specifically item #603).



Fig. 6

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d. There is no showing, teaching or disclosure of the claimed determination of server types and concurrent deployment of servers of dissimilar types, as discussed at paragraph [0021] (remarks, pg. 9).

In response to argument [d], Examiner respectfully disagrees.

In addition to responses to argument [a-c], the reproduced figure 6 above clearly shows the appliance group type, appliance model number and appliance hardware platform.

This showing logically suggests the determination of the server types.

Furthermore, without this functionality, it is unclear to the examiner how a person skilled in the art can reconfigure and/or re-provisioned the plurality of servers.

Stated another way, determination of the server type and/or type of services, such as email services, firewall services, etc., provided by the server is the key functionality in providing re-provisioning and/or reconfiguring services.

Specification

The objection presented in the previous office action is withdrawn due to claim amendments.

Claim Rejections - 35 USC § 112

The 35 U.S.C. 112, first paragraph rejection presented in the previous office action is withdrawn due to claim amendments.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 39 recites:

The method of claim 38 wherein deploying further comprises concurrently deploying images for a plurality of servers, the plurality of servers including servers of a dissimilar server type.

The term “concurrently” renders the claim indefinite because it is unclear whether the functionality encompassed by the term is with respect to time or nodes.

Stated another way, the term concurrently is defined as a process that is happening at the same time as some other process and/or operating or acting in conjunction with another.

Furthermore, the specification fails to describe and/or define such a term and/or usage of such a term.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 20, 22, 25, 28, 29 and 31-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 20 recites:

An apparatus, comprising:

means for receiving a design list for a network of servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network, and number of WAN IP addresses assigned to the network;

means for generating a first network design from a plurality of network designs for the network based upon a design rule and the design list, wherein a first network design of the plurality of network designs is selected, and wherein the design rule determines a first server in the network is first in receiving all incoming data packets to the network;

means for configuring software and hardware settings for a second server in the network, the software and hardware settings including switches, jumpers, IP addresses, links, ports and values of software parameters, the configuration of the software and hardware settings based upon the design rule and the first network design;

means for building a digital image with the software and hardware settings for the second server; and

means for deploying the digital image onto the second server, the second server accessible to network traffic via the first server.

First, the claim fails to fall into any of the four enumerated categories of patentable subject matter recited above.

The claim does not appear to be a process; a machine because it fails to disclose a hardware element; a manufacture; or composition of matter.

The “means” disclosed in the claim is not limited to a hardware configuration. In fact, the “means” is defined as a software component (see specification, pgs. 4-5 [009-0011]: master configurer: a software component implementing the functionality encompassed the means plus function in the claim), thus enabling the claim non-statutory.

Secondly, the claims as recited, fails to produce useful, concrete and tangible results.

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Claim 22, 31 and 32 are rejected for the same reasons as set forth in claim 20.

Claim 25 recites:

An apparatus comprising:
graphic user interface having a function to receive a design list for a network of servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network, and number of WAN IP addresses assigned to the network;
design rule logic having design instructions, wherein the design instructions determine a first server in the network is first to receive all incoming data packets to the network;
network topology logic having a function to generate a plurality of network designs for the network according to the design list and the design instructions, wherein a first design of the plurality of network designs is selected through the graphic user interface;
configuration logic to configure software and hardware settings for a second server in the network, the software and hardware settings including switches, jumpers, IP address, links, ports and values of software parameters, the configuration of the software and hardware settings based upon the design instructions and the first network design;
digital image building logic to build a digital image with the software and hardware settings for the second server and
deployment logic to deploy the digital image onto the second server, the second server accessible to network traffic via the first server.

First, the claim fails to fall into any of the four enumerated categories of patentable subject matter recited above.

The claim does not appear to be a process; a machine because it fails to disclose a hardware element; a manufacture; or composition of matter.

The claim is directed towards the non-statutory subject matter such as a program listing, program instructions, code, script, and/or software per se.

Further, in order to realize the functionality encompassed by the “logic”, the logic has to be executed by a processor and/or a computer system, which produces “useful, concrete and tangible results”.

See MPEP § 2106 (IV) for more on compliance with 35 U.S.C. 101.

Claims 28, 29, 33-35 are rejected for the same reasons as set forth in claim 25.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 7, 9, 20, 25, 28, 29, 31, 33 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al. (hereinafter Abboud, US 2002/0184484 A1) in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1).

As per claim 25, Abboud discloses an apparatus comprising: graphic user interface (fig. 6 item #600); configuring logic to configure network settings, including IP addresses, links and ports for a first server in the network (pg. 3 block #36); digital image building logic to build a digital image with the network settings for the second server in the network, the second server having different server type than the first server and operable to support dissimilar operations (pg. 2 block #15, pg. 5 block #50 and fig. 4B item #459); and deployment logic to deploy the digital image onto the second server in the network, the second server accessible to network

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traffic via the first server (, fig. 2, pg. 2 block #16, pg. 3 block #32, 36 pg. 5 block #47, 51, pg. 6 block #61 and fig. 4A item #405).

However, Abboud does not disclose the process of receiving a design list for a network of servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network and number of WAN IP addresses assigned to the network; generating a plurality of networks designs for the network based upon the design rule and the design list wherein the design rule determines a first server in the network is receiving all incoming data packets to the network, and configuring software and hardware settings including switches, jumpers, for the server based upon the design rule and network design.

Steitle, from the same field of endeavor discloses the process of receiving a design list for a network of servers, the design list comprising functions of the network, amount of hardware for the network, type of hardware for the network and number of WAN IP addresses assigned to the network; generating a plurality of networks designs for the network based upon the design rule and the design list wherein the design rule determines a first server in the network is receiving all incoming data packets to the network (i.e. a firewall server), and configuring software and hardware settings including switches, jumpers, for the server based upon the design rule and network design, the second server having different server type than the first server and operable to support dissimilar operations, and wherein the second server is accessible to network traffic via the first server (fig. 2, fig. 4: shows the designed network including servers, firewall, routers, web server, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud in view of Steitle in order to design a network and configure the software and hardware based upon the design rule and the designed network.

One of ordinary skilled in the art would have been motivated because it would have allowed a user to design and implement a network comprising servers, routers, firewalls, etc. (Steitle, pg. 1 [0005], [0012]).

As per claim 2, Abboud discloses a system wherein the network comprises a server farm wherein the network handles variable workloads and wherein all functions of the network continue in the event the second server of the network fails (pg. 1 block#7 and fig. 2, Steitle, fig. 4).

As per claim 7, Abboud discloses the process of dynamically building the digital image (pg. 5 block #49-50 and pg. 6 block #58).

As per claim 9, Abboud discloses the process of rebuilding the digital image for at least one server in the network and redeploying the digital image for the at least one server (pg. 5 block #52, fig. 6 item #600 and pg. 6 block #58).

As per claim 29, Abboud discloses a system comprising a database to store one or more digital images of a server, one or more network topologies, and network configurations (pg. 5 block #55, pg. 6 block#61).

As per claim 31, Abboud does not disclose the process wherein the design rule instructing how a component in a network can or cannot be employed in the network.

Steitle, from the same field of endeavor discloses the process wherein the design rule instructs how a component in a network can or cannot be employed in the network (fig. 2, fig. 4:

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shows the designed network including servers, firewall, routers, etc., pg. 1 [0012-0015], pg. 2 [0019-0021], [0023-0026]).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud in view of Steitle in order to provide a rule on how component in a network can or cannot be employed.

One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 25.

As per claim 37, Abboud discloses the process of determining a server type, the server type indicative of the configured parameters (fig. 6: shows the server type, model number and the platform).

As per claim 38, Abboud in view of Steitle discloses the process of determining for each of the deployed images, cohesive settings operable to interconnect servers receiving the deployed images (i.e. redundant connections, Steitle, fig. 4: design of a network comprising redundant links; Applicant Admitted Prior Art, remarks, pg. 7).

As per claim 39, Abboud discloses the process of concurrently deploying images for a plurality of servers, the plurality of servers including servers of dissimilar server type (fig. 2 and fig. 6).

As per claims 1, 20, 28 and 33, they do not teach or further define over the limitations in claims 2, 7, 9, 25, 29, 31 and 37-39. Therefore claims 1, 20, 28 and 33 are rejected for the same reasons as set forth in claims 2, 7, 9, 25, 29, 31 and 37-39.

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4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al. (hereinafter Abboud, US 2002/0184484 A1) in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), and further in view of Haun et al. (hereinafter Haun, U. S. Patent No. 6,751,658 B1).

As per claim 8, Abboud in view of Steitle does not explicitly disclose the process of deploying the dynamically built image over a network connection in response to a net boot request from a first server.

Haun, from the same field of endeavor, discloses the process of transferring the boot image over a network connection in response to a net boot request from a network client (a network computer or server, fig. 3 step# 355, 375, 380, 385 and col. 9 L9 to col. 10 L16).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Haun as stated above with Abboud and Steitle in order to transfer or deploy the boot image in response to a net boot request from a server.

One of ordinary skilled in the art would have been motivated because net booting approach greatly simplifies network computers client administration and provides a high level of reliability for the network computers and/or servers (Haun, col. 9 L33-36).

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5. Claims 22, 30, 32, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al. (hereinafter Abboud, US 2002/0184484 A1) in view in view Steitle et al. (hereinafter Steitle, US 2002/0188700 A1), and further in view of Li et al. (hereinafter Li, US 6,012,088).

As per claim 30, Abboud in view of Steitle does not disclose the process wherein the number of WAN IP addresses being fewer than the numbers of servers in the network and wherein configuring network settings comprising sending a request to a Domain Name system Server.

Li, discloses a system comprising a DNS server, DHCP server and a NAT server that translates host and network addresses (fig. 6 item #236, 238, 210, col. 2 L60-67, col. 8 L15-34: note that whenever a NAT server is configured in the network, it implies that the local network has fewer global or WAN IP addresses than the number of hosts in the network, and the NAT server solves the problem by translating the local IP address to the global IP address).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Abboud and Steitle in view of Li in order to include NAT and DNS servers in the network.

One of ordinary skill in the art would have been motivated because it would have enabled communications between the local area network (LAN) and the Internet (Li, col. 2 L60-67, col. 8 L24-26).

As per claim 32, Abboud in view of Steitle does not disclose the system wherein configuration means includes a DNS server and a NAT server, the NAT server to route data packets to and from a virtual IP address of the network.

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Li, explicitly discloses the system comprising a Domain Name system and a network address translator (NAT) for routing the data packets from virtual IP address to the Internet or external network (fig. 6 item #236, 238, 210, col. 2 L60-67, col. 8 L15-34).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Abboud and Steitle in view of Li, in order to include a Domain Name server and NAT server.

One of ordinary skilled in the art would have been motivated in order to enable the local area network (LAN) to communicate with the Internet successfully (Li, col. 2 L60-67, col. 8 L24-26).

As per claims 22, 34 and 35, they do not teach or further define over the limitations in claims 30 and 32. Therefore claims 22, 34 and 35 are rejected for the same reasons as set forth in claims 30 and 32.

Additional References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Abboud et al., U. S. Patent No. 6,636,958 B2.
- b. Ludovici et al., U. S. Patent No. 6,567,849 B2.
- c. Wilde et al., U. S. Patent No. 6,066,182.
- d. Knox et al., U. S. Patent No. 5,978,911.
- e. Selitrennikoff et al., U. S. Patent No. 6,301,612 B1.

Conclusion

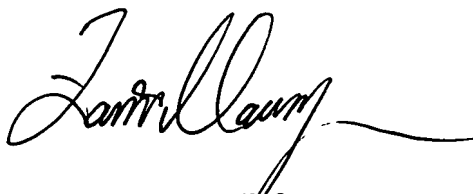
Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on Increased Flex Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Art Unit 2151
May 14, 2007.



ZARNI MAUNG
SUPERVISORY PATENT EXAMINER